AMENDMENTS TO THE CLAIMS, COMPLETE LISTING OF CLAIMS IN ASCENDING ORDER WITH STATUS INDICATOR

Please amend the following claims as indicated.

1. (Currently Amended) A method for determining amino acid sequence of a peptide, comprising the steps of:

preparing an amino acid ~~derivative~~, wherein said amino acid ~~derivative being~~ (a) is obtained from any of α-amino acid, β-amino acid, γ-amino acid, and δ-amino acid, (b) is negatively charged as a whole molecule, ~~and comprising an amino acid having an amino group protected with a protective group and~~ (c) comprises a side chain containing an acidic group, and (d) comprises an amino group protected with a protective group which (i) prevents the amino group from becoming positively charged and (ii) maintains the negative charge of the molecule as a whole in water;

preparing a peptide of interest or fragments thereof obtained by optionally cleaving the peptide of interest for ~~coupling to~~ reacting with said amino acid ~~derivative~~;

~~coupling~~ reacting said amino acid ~~derivative to~~ with the N-terminus of the peptide of interest or the fragments thereof to obtain a ~~coupled~~ product peptide molecule; and

subjecting the ~~coupled~~ product peptide molecule to mass spectrometry analysis,

wherein the analysis of the mass spectra of the product peptide molecule determines the amino acid sequence of the peptide.

2. (Original) The method according to claim 1, wherein the acidic group is selected from the group consisting of carboxyl, sulfo, phosphono, sulfate, and phosphate group.

3. (Original) The method according to claim 1, wherein the amino acid is selected from the group consisting of cysteic acid, aspartic acid, glutamic acid, threonine phosphate, serine phosphate, tyrosine sulfate, and tyrosine phosphate.

4. (Original) The method according to claim 1, wherein the protective group is a functional group other than a basic group.

5. (Original) The method according to claim 1, wherein the protective group is selected from the group consisting of biotinyl, acetyl, formyl, and phenylisothiocarbamyl.

6. (Original) The method according to claim 1, wherein the protective group is biotinyl.

7. (Currently Amended) The method according to claim 1, wherein the amino acid ~~derivative~~ is N-biotinylcysteic acid.

8. (Previously Presented) The method according to claim 1, wherein the peptide of interest is cleaved by an enzyme that can specifically hydrolyze a peptide bond on a C-terminal side of a basic amino acid residue.

9. (Currently Amended) The method according to claim 1, wherein the ~~coupled~~ product peptide molecule is ionized and is decayed into decay ions, which are then subjected to mass spectrometry for separation and detection.

10. (Currently Amended) The method according to claim 9, wherein the ~~coupled~~ product peptide molecule is ionized by matrix-assisted laser desorption ~~inonization~~ ionization (MALDI).

11. (Original) The method according to claim 9, wherein the ions are separated and detected by time-of-flight mass spectrometry (TOFMS).